

Serial No. 09/000,301  
March 10, 2004  
Reply to the Office Action dated November 18, 2003  
Page 2 of 11

**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**LISTING OF CLAIMS:**

Claims 1-4 (canceled)

Claim 5 (previously presented): An image processing device comprising:  
image processing means for executing image processing to move an object to different positions on a display means;  
display means for displaying an image at an object display position based on the image processing;  
contact means movably provided and brought into contact with said display means by the operation of a player;  
input means provided on a side of said display means and generating at least one signal for computing a contact position when said contact means is brought into contact with said display means, such that the strength of the at least one signal depends on the contact position;  
position computing means for computing said contact position based on the at least one signal from the input means; and  
determination means for determining whether a desired positional relationship is established between said contact position and said object display position based on a computed result;  
wherein said image processing means provides prescribed image processing of said object when the determination means determines that the desired positional relationship has been established.

Serial No. 09/000,301

March 10, 2004

Reply to the Office Action dated November 18, 2003

Page 3 of 11

Claim 6 (previously presented): The processing device as defined in Claim 5, wherein said input means comprises a plurality of detectors for sensing sound or vibration when said contact means is brought into contact with said display means, and said position computing means computes said contact position by comparing a detection timing provided by said plurality of detectors.

Claim 7 (previously presented): The image processing device as defined in Claim 5, wherein said contact means comprises switch means for generating contact signals indicating contact with said display means, and said position computing means begins processing based on the contact signals generated by said switch means.

Claim 8 (currently amended): The image processing device as defined in any of Claims 4-5 through 7, wherein said determination means determines that said prescribed relationship has been established when said contact position is within a predetermined range from said object.

Claim 9 (currently amended): The image processing device as defined in any of Claims 4-5 through 7 further comprising:

point calculating means for awarding points when it has been determined by said determination means that said prescribed relationship has been established.

Claim 10 (previously presented): The image processing device as defined in Claim 9, wherein said display means includes a display surface that is inclined so that the angle between the perpendicular direction and the normal line of the display surface ranges from 3 to 17 degrees.

Serial No. 09/000,301

March 10, 2004

Reply to the Office Action dated November 18, 2003

Page 4 of 11

Claim 11 (previously presented): The image processing device as defined in Claim 9, wherein said display means comprises a protective cover that covers the display surface on which the images are displayed.

Claims 12-15 (canceled)

Claim 16 (previously presented): A method for processing images, comprising:  
executing image processing to move an object to different positions on a display;  
displaying an image based on the step of executing image processing;  
providing contact to a display by the operation of a player, and generating a signal for computing a contact position when the contact has been made with said display such that the strength of the signal depends on the contact position;  
computing said contact position based on the signal; and  
determining whether a desired positional relationship is established between said contact position and an object display position, wherein said executing step provides prescribed image processing of said object when it has been determined that the desired positional relationship has been established.

Claim 17 (previously presented): A method for processing images, comprising:  
executing image processing to move an object to different positions on a display;  
displaying an image based on the image processing;  
receiving a contact input when a player provides contact to a display;  
generating a signal to compute a contact position when the contact has been made with said display such that the strength of the signal depends of the contact position;  
computing said contact position based on the signal; and  
determining whether a desired positional relationship is established between said contact position and an object display position, wherein said executing step provides

Serial No. 09/000,301

March 10, 2004

Reply to the Office Action dated November 18, 2003

Page 5 of 11

prescribed image processing of said object when it has been determined that the desired positional relationship has been established.

Claim 18 (canceled)

Claim 19 (previously presented): A computer-readable medium encoded with instructions for directing a processor to:

- execute image processing to move an object;

- display an image based on the execution of image processing;

- generate a signal for computing a contact position when contact occurs within a predetermined distance from the object such that the strength of the signal depends on the contact position;

- compute the contact position based on the plurality of signals; and

- determine whether a desired positional relationship is established between the contact position and an object display position, wherein the image processing provides prescribed image processing of said object when it has been determined that the desired positional relationship has been established.

Claim 20 (previously presented): A computer-readable medium encoded with instructions for directing a processor to:

- execute image processing to move an object;

- display an image based on the image processing;

- receive a contact input when contact occurs within a predetermined distance from the image;

- generating a signal to compute a contact position when receiving the contact input; compute the contact position based on the signal such that the strength of the signal depends on the contact position; and

Serial No. 09/000,301

March 10, 2004

Reply to the Office Action dated November 18, 2003

Page 6 of 11

determine whether a desired positional relationship is established between the contact position and an object display position, wherein the image processing provides prescribed image processing of the object when it has been determined that the desired positional relationship has been established.

Claim 21 (previously presented): An image processing system comprising:  
an image processing module for performing image processing for moving an object to different positions on a display module;

a display module for causing the display of an image based on the image processing performed by the image processing module;

a contact input module provided on a side of said display module for receiving a contact input when contact occurs within a predetermined distance from the object and for generating a signal to compute a contact position when receiving the contact input such that the strength of the signal depends on the contact position; and

a determiner module for determining whether a desired positional relationship is established between the contact position and an object display position, wherein the image processing module provides prescribed image processing of the object when it has been determined that the desired positional relationship has been established.

Claim 22 (previously presented): The image processing system of claim 21 further including:

a point calculator module for awarding points when the desired positional relationship has been established by the determiner module.

Claim 23 (previously presented): An image processing device comprising:  
an image processor for executing image processing to move an object to different positions on a display;  
a display for displaying an image based on the image processing;

Serial No. 09/000,301

March 10, 2004

Reply to the Office Action dated November 18, 2003

Page 7 of 11

a contact unit movably provided and brought into contact with the display;  
an input module provided on a side of the display for generating a position indicating signal when the contact unit is brought into contact with the display at a contact position such that the strength of the position indicating signal depends on the contact position;

a position module for computing the contact position based on the position indicating signal generated by the input module; and

a determiner module for determining whether a desired positional relationship is established between the contact position and an object display position, where said image processor provides prescribed image processing of the object when the desired positional relationship has been established.

Claim 24 (previously presented): The image processing device of claim 23, wherein the contact unit is a hammer-type input device.

Claim 25 (previously presented): The image processing device of claim 23, wherein the contact unit includes a vibration switch for detecting the contact with the display.

Claim 26 (previously presented): The image processing device of claim 23, wherein the contact unit includes a photoreceiver for receiving the brightness data of the display.

Claim 27 (previously presented): The image processing device of claim 26, wherein the position module receives brightness data from the photoreceiver to compute the contact position.

Serial No. 09/000,301

March 10, 2004

Reply to the Office Action dated November 18, 2003

Page 8 of 11

Claim 28 (previously presented): The image processing device of claim 26, wherein the contact unit includes an optic fiber for sending brightness data of the display to the photoreceiver.

Claim 29 (previously presented): The image processing device of claim 26, wherein the photoreceiver is provided within a photodetector substrate on the contact unit.

Claim 30 (previously presented): The image processing device of claim 29, wherein the photodetector substrate is located in a case unit affixed to the side of the contact unit.

Claim 31 (previously presented): The image processing device of claim 23, wherein the prescribed relationship is established if the contact position is within a predetermined distance from the object display position.

Claim 32 (previously presented): The image processing device of claim 31, wherein if the prescribed relationship is established the prescribed image processing causes the disappearance of the image on the display.

Claim 33 (previously presented): The image processing device of claim 31, wherein the predetermined distance from the object display position forms a rectangular target area around the object.

Claim 34 (previously presented): The image processing device of claim 23, wherein the display includes a protective cover.

Serial No. 09/000,301

March 10, 2004

Reply to the Office Action dated November 18, 2003

Page 9 of 11

Claim 35 (previously presented): The image processing device of claim 23, wherein the display includes a surface forming an angle in a range from 3 to 17 degrees from a vertical direction.

Claim 36 (previously presented): The image processing device of claim 23, wherein the contact unit includes a buffer for softening the impact on the display during the contact.

Claim 37 (previously presented): The image processing device of claim 23, wherein the contact unit includes a sound detector for detecting and receiving a resulting sound of the contact between the contact unit and the display.

Claim 38 (previously presented): The image processing device of claim 37, wherein the input module receives signals from the sound detector when the sound detector detects and receives the resulting sound of the contact between the contact unit and the display for computing the contact position.

Claim 39 (previously presented): The image processing device of claim 37, wherein the sound detector is a microphone.

Claim 40 (previously presented): The image processing device of claim 23, wherein the display includes a touch screen where the contact between the contact unit and display generates positioning information.